Remarks

In view of the following discussion, the applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U. S. C. § 103. Thus, the applicants believe that all of these claims are in allowable form.

In the response to applicants arguments filed 7 January 2008 the Examiner indicates that he "does not see how the negative limitation to independent claim 1 introduced by the previous amendment overcomes either Kawamura et al or Udagawa. Particularly Udagawa cannot disclose a concordance for an unrecorded area of a recording medium, since there is no data with which to correspond. If the Applicant or his Representative has information that shows both Kawamura et al and Udagawa to inherently require a concordance list, it will be considered by the Examiner."

In this regard, the applicant respectfully reminds the Examiner of the opinion of the Board of Appeals, which concerning Kawamura already clearly pointed out and confirmed that the disclosure of Kawamura does not met the present invention. Referring to the Decision on Appeal at page 5, the Board stated that "The Examiner's reliance on col. 14, ll. 55-56 and col. 5, ll. 58-67 (Answer 4) for allegedly disclosing a binary search is unavailing. Kawamura's search is based on comparing a stored time code with a user specified time code ..."

It has to be noted that the recording medium containing information blocks of the present invention recited in applicant's claim 1 does not include time code information recorded in each sector of the recording medium for correlating a replay time with a recording location as it is at least now absolutely clear by the disclaimer, as it has been belied that it is not already inherent in a missing "concordance list that correlates replay time with recording location". Furthermore, the Board of Appeals already disagreed with the Examiner that Kawamura discloses expressly or inherently a search means for binary searching

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the recording medium on the basis of a replay time as claimed in independent claim 1.

Further, Udagawa has been cited in the procedure of the corresponding application granted in the EPO. Udagawa does not read on accessing at defined playing time information stored on the recording medium containing information blocks without time code information recorded in each sector of the recording medium for correlating a replay time with a recording location and without a concordance list that correlates replay time with recording location because, as confirmed by the Examiner, "there is no data with which to correspond" in the unrecorded area.

REJECTIONS

A.   35 U. S. C. § 103

1.   Claims 1-12 are not unpatentable over Kawamura et al. in view of Udagawa

Claims 1-12 stand rejected under 35 U. S. C. § 103(a) as being unpatentable over Kawamura et al. (U. S. Patent 6,075,920 issued June 13, 2000) in view of Udagawa (U. S. Patent 5,706,261 issued on January 6, 1998). The applicants submit that these claims are not rendered obvious by the combination of these references.

The Examiner states: "Kawamura et al discloses a means for searching of the recording medium on the basis of **replay time based on binary data** searching and comparison as analyzed and discussed above, but do not specifically disclose that the search is a "binary search.", although the Board of Appeals already clarified: **"Kawamura's search is based on comparing a stored time code with a user specified time code** (see, Kawamura et al at

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column 14, lines 54-60). Although the time code is in a Binary Coded Decimal (BCD) format (see, Kawamura et al. at column 5, lines 65-67) as the Examiner indicates, the Board of Appeals stated that Kawamura's search hardly qualifies as a "binary search" as the term is understood by skilled artisans. In fact, Kawamura is silent regarding the specific search technique employed."

The Examiner states furthermore: "**Udagawa teaches binary searches** (see Udagawa at Fig. 4 and column 6, lines 9-16) that provide the user with a quick and reliable search, and is a well known method of locating desired data in a file, as noted in the Board of Patent Appeals and Interferences decision." However, Udagawa teaches a binary search method as shown in Fig. 4 (see, Udagawa at Fig. 4 and column 6, lines 5-16), which in reality is a sequential search and Udagawa discloses in addition a detection of RF signals reproduced from the write once optical disc during track jump in order to detect a boundary between a recorded area and an unrecorded area to search quickly for an approximate boundary (see, Udagawa at column 2, lines 25-49). The search disclosed in Udagawa is a sequential search. The present invention discloses a non-sequential search as the iterative approximation method according to claim 10. Related to the difference between binary search and sequential search - the applicant respectfully points out that said terms couldn't easily be substituted for each other, because a sequential search according is based on a logical sector search and the present invention relates to a physical sector search. The term "sequential" means consecutive, following one after another and Udagawa teaches a sequential search.

According to the present invention, a search means is provided for binary searching recording points on the recording medium (which means a physical search) to read data from the disc and to analyze the data read from the disc to find a navigation sector designator. If such a designator is found, a statement about the present replay time contained in the navigation sector information is evaluated and is compared with a predetermined playing time from which it is intended to replay information stored on the recording medium. As such,

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Udagawa neither discloses nor gives a hint to the present invention as it e.g. in addition also becomes clear as Udagawa reads: "The CPU 24 performs data control using the transmitted sub-code." (see Udagawa at column 6, lines 26-27).

Therefore, even if someone had some motivation to apply a binary search method disclosed by Udagawa on the added subcode information (time code at the accessed location on the medium) disclosed by Kawamura, that combination would result in a totally different solution for different purposes than either the apparatus or methods described in the present application, which is based on the play time without a concordance list defining a relationship between replay time and recording point on the recording medium and without time code information recorded in each sector of the recording medium for correlating a replay time with a recording location.

Claims 2-12 depend directly, or indirectly from claim 1. For the same reasons as described above for claim 1, claims 2-12 are also patentable over Kawamura et al. in view of Udagawa.

2.   Claims 3 and 11-12 are not obvious over Kawamura et al. in view of Udagawa and further in view of Carter et al.

Claims 3 and 11-12 stand rejected under 35 U. S. C. § 103(a) as being obvious over Kawamura et al. (U. S. Patent 6,075,920 issued June 13, 2000) in view of Udagawa (U. S. Patent 5,706,261 issued on January 6, 1998) and further in view of Carter et al. (U. S. Patent 5,845,331 issued December 1, 1998). The applicants submit that these claims are not rendered obvious by the combination of these references.

Claims 3 and 11-12 depend directly, or indirectly, from claim 1 which is directed to a replay appliance for accessing information stored on a recording media (see, specification at page 2, lines 8-12). The replay appliance includes a scanning device, a search means and a comparator (see, specification at page 2,

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line 24 to page 3, line 10). The scanning device first scans the recording media (*see*, specification at page 4, lines 21-25). The search means then performs a binary search of the scanned recording medium based on a replay time (*see*, specification at page 4, lines 7-21). The comparator compares the replay time to a desired replay time and the scanning device scans information on the recording media at a point that corresponds to the result of the comparator to access information stored on the recording media at the defined playing time (*see*, specification at page 4, line 21 to page 6, line 2).

Kawamura et al. describes an apparatus for recording and reproducing video data (*see*, Kawamura et al. at column 1, lines 7-11). In Kawamura et al., time code information is recorded at the head of each sector of the recording medium (*see*, Kawamura et al. at column 5, lines 49-67). A search is made based on a time code specified by a user (*see*, Kawamura et al. at column 14, lines 54-56). A control unit instructs a pickup to move to the sector of the recording medium where the time code specified by the user is located (*see*, Kawamura et al. at column 14, line 59 to column 15, line 15).

Kawamura et al. does not describe or suggest a replay appliance in which a scanning device first scans a recording media, then a search means performs a binary search of the scanned recording medium based on a replay time, a comparator compares the replay time to a desired replay time and the scanning device scans information on the recording media at a point that corresponds to the result of the comparator to access information stored on the recording media at the desired playing time. Rather, Kawamura et al. only teaches searching time code information recorded in each sector of a recording medium based on a time code specified by a user and moving a pickup to the sector of the recording medium where the time code specified by the user is located. Since Kawamura et al. does not teach use of a replay appliance in which a scanning device first scans a recording media, then a search means performs a binary search of the scanned recording medium based on a replay time, a comparator compares the replay time to a desired replay time and the scanning device scans information

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on the recording media at a point that corresponds to the result of the comparator to access information stored on the recording media at the desired playing time, claims 3 and 11-12 are patentable over Kawamura et al.

The Examiner states furthermore: **"Udagawa teaches binary searches** (see Udagawa at Fig. 4 and column 6, lines 9-16) that provide the user with a quick and reliable search, and is a well known method of locating desired data in a file, as noted in the Board of Patent Appeals and Interferences decision." However, Udagawa teaches a binary search method as shown in Fig. 4 (see, Udagawa at Fig. 4 and column 6, lines 5-16), which in reality is a sequential search and Udagawa discloses in addition a detection of RF signals reproduced from the write once optical disc during track jump in order to detect a boundary between a recorded area and an unrecorded area to search quickly for an approximate boundary (see, Udagawa at column 2, lines 25-49). The search disclosed in Udagawa is a sequential search. The present invention discloses a non-sequential search as the iterative approximation method according to claim 10. Related to the difference between binary search and sequential search - the applicant respectfully points out that said terms couldn't easily be substituted for each other, because a sequential search according is based on a logical sector search and the present invention relates to a physical sector search. The term "sequential" means consecutive, following one after another and Udagawa teaches a sequential search.

According to the present invention, a search means is provided for binary searching recording points on the recording medium (which means a physical search) to read data from the disc and to analyze the data read from the disc to find a navigation sector designator. If such a designator is found, a statement about the present replay time contained in the navigation sector information is evaluated and is compared with a predetermined playing time from which it is intended to replay information stored on the recording medium. As such,

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Udagawa neither discloses nor gives a hint to the present invention as it e.g. in addition also becomes clear as Udagawa reads: "The CPU 24 performs data control using the transmitted sub-code." (see Udagawa at column 6, llines 26-27).

Therefore, even if someone had some motivation to apply a binary search method disclosed by Udagawa on the added subcode information (time code at the accessed location on the medium) disclosed by Kawamura, that combination would result in a totally different solution for different purposes than either the apparatus or methods described in the present application, which is based on the play time without a concordance list defining a relationship between replay time and recording point on the recording medium and without time code information recorded in each sector of the recording medium for correlating a replay time with a recording location.

Carter et al. describes a memory system (see, Carter et al. at column 1, lines 61-63). The memory system includes shared memory for storing instructions and data (see, Carter et al. at column 1, line 66 to column 2, line 1). Access to the shared memory of the memory system is restricted by guarded pointers (see, Carter et al. at column 2, lines 2-17).

Carter et al. does not describe or suggest a replay appliance in which a scanning device first scans a recording media, then a search means performs a binary search of the scanned recording medium based on a replay time, a comparator compares the replay time to a desired replay time and the scanning device scans information on the recording media at a point that corresponds to the result of the comparator to access information stored on the recording media at the desired playing time. Rather, Carter et al. teaches a completely different arrangement in which access to a shared memory of a memory system is restricted by guarded pointers. Since Carter et al. does not teach use of a replay appliance in which a scanning device first scans a recording media, then a search means performs a binary search of the scanned recording medium based on a replay time, a comparator compares the replay time to a desired replay time and the scanning device scans information on the recording media at a point that

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corresponds to the result of the comparator to access information stored on the recording media at the desired playing time, claims 3 and 11-12 are patentable over Carter et al.

Furthermore, since Kawamura et al. only teaches searching time code information recorded in each sector of a recording medium based on a time code specified by a user and moving a pickup to the sector of the recording medium where the time code specified by the user is located, Udagawa only teaches a binary search method and Carter et al. only teaches an arrangement in which access to a shared memory of a memory system is restricted by guarded pointers, the combination of these references does not describe or suggest applicant's arrangement recited in claims 3 and 11-12. In particular, claims 3 and 11-12 recite a replay appliance in which a scanning device first scans a recording media, then a search means performs a binary search of the scanned recording medium based on a replay time, a comparator compares the replay time to a desired replay time and the scanning device scans information on the recording media at a point that corresponds to the result of the comparator to access information stored on the recording media at the desired playing time. Thus, claims 3 and 11-12 are patentable over the combination of these references.

CONCLUSION

Thus, the applicants submit that none of the claims, presently in the application, are obvious under the provisions of 35 U. S. C. § 103. Consequently, the applicants believe that all of the claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Ms. Patricia A. Verlangieri, at (609)

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734-6867, so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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July 16, 2008

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